

54Mbps Wireless Access Point w/bridge, inter-building

WAP-4030A

User's Manual



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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4. Consult the dealer or an experienced radio technician for help.

FCC Caution

To assure continued compliance. (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the Following two conditions: (1) This device may not cause harmful interference, and (2) this Device must accept any

interference received, including interference that may cause undesired operation.

Federal Communication Commission (FCC) Radiation Exposure

Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In

order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to

the antenna shall not be less than 20 cm (8 inches) during normal operation.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN

PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication

terminal Equipment and the mutual recognition of their conformity (R&TTE)

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal

Equipment and Satellite Earth Station Equipment) As of April 8,2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However,

special attention must be paid to the dangers of electric shock and static electricity when working with

electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed

at all times to ensure the safe use of the equipment.

EU Countries Not Intended for Use

The ETSI version of this device is intended for home and office use in Austria Belgium, Denmark,

Finland, France (with Frequency channel restrictions). Germany, Greece, Ireland, Italy,

Luxembourg .The Netherlands, Portugal, Spain, Sweden and United Kingdom.

The ETSI version of this device is also authorized for use in EFTA member states Iceland,

Liechtenstein, Norway and Switzerland.

Potential restrictive use

France: Only channels 10,11,12 and 13

Revision

User's Manual for PLANET Wireless Access Point

Model: WAP-4030A

Rev: 2.0 (June, 2005)

Part No. EM-WAP4030Av2

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Chapter 1 Introduction

Thank you for purchasing WAP-4030A. The WAP-4030A supports both IEEE 802.11b and IEEE 802.11g standards. You can use it to connect an existing WLAN, or to build up a new wireless LAN. Except for essential AP mode, WAP-4030A also provides Repeater, Bridge, and Client modes to accommodate all kinds of network topology. High data rate (up to 54Mbps) support allows faster communication between LAN and WLAN. Maximize network efficiency while minimizing your network investment and maintenance costs.

The WAP-4030A provides the most security functions such as 64/128-bit WEP (Wired Equivalent Privacy) Encryption, WPA-PSK and MAC address filter to consolidate the wireless network security. There is no chance for the unauthorized wireless stations to access your wireless network.

With the user-friendly management interface and versatile features, WAP-4030A is the best choice to integrate your wireless and wired network seamlessly.

1.1 Package Contents

Make sure that you have the following items:

- 1 x WAP-4030A
- 1 x Power Adapter
- 1 x User's Manual CD
- 1 x Quick Installation Guide
- 1 x External Antenna

Note: If any of the above items are missing, contact your supplier as soon as possible.

1.2 System Requirements

Before installation, please check the following requirements with your equipment.

- Pentium Based (or above) IBM-Compatible PC System
- CD-ROM drive
- Windows 98/Me/NT/2000/XP/Server2003 Operating System with TCP/IP protocol

1.3 Features

- Compliant with the IEEE 802.11g/802.11b (DSSS) 2.4GHz specification
- High data rate up to 54Mbps, Auto rate fallback
- Seamlessly integrate wireless and wired Ethernet LAN networks

- Provide WPA-PSK, 64/128-bit WEP Encryption and MAC Filter to protect the wireless data transmissions
- Support Wireless AP / Client / Repeater and Bridge mode
- Support MAC Address Filter
- Support DHCP client for auto IP address assignment
- Provide a reverse-polarity SMA connector for external antenna connection
- Auto Fall-Back Data Rate for Long-Distance communication and noisy environment
- Web-based configuration

1.4 Specification

4 Specii	ication
Standard	IEEE 802.11g / 802.11b
Frequency Band	2.400~2.4835GHz
Transfer Rate	802.11g: 54/48/36/24/18/12/9/6Mbps
	802.11b: 11/5.5/2/1Mbps
Modulation	OFDM, CCK, DQPSK and DBPSK
Sensitivity	IEEE802.11b:
	-92dBm @ 1Mbps
	-89dBm @ 2Mbps
	-87dBm @ 5.5Mbps
	-82dBm @ 11Mbps
	IEEE802.11g
	-91dBm @ 6Mbps
	-90dBm @ 9Mbps
	-87dBm @ 12Mbps
	-82dBm @ 18Mbps
	-82dBm @ 24Mbps
	-78dBm @ 36Mbps
	-71dBm @ 48Mbps
	-71dBm @ 54Mbps
Channel	FCC: 11 Channels (US, Canada)
	ETSI: 13 Channels (Europe)
	ELEC: 14 Channels (Japan)
Radio Technology	Direct Sequence Spread Spectrum (DSSS)
Antenna	Detachable dipole antenna
Transmit Power	16±2dBm (Typical)
LAN Interface	1-port RJ-45 UTP
Cabling	Category 5/5e or above, 4-pair

LED Indicators	3; PWR, WLAN, LAN
Power	12V DC, 1A
Temperature	0 ~ 55°C (Operating)
Humidity	10 ~ 90%, non-condensing (Operating)
Dimension	169 x 87 x 30 (mm)
Weight	155g
Emission	FCC Class B, CE-mark

1.5 Wireless Performance

The following information will help you utilizing the wireless performance and operating coverage of WAP-4030A.

1. Site selection

To avoid interferences, please locate WAP-4030A and wireless client away from transformers, microwave ovens, heavy-duty motors, fluorescent lights and other industrial equipments. Keep the number of walls or ceilings between AP and clients as few as possible. Otherwise the signal strength may be seriously reduced. Place WAP-4030A in a open space or add additional WAP-4030A as needed to improve the coverage.

2. Environmental factors

The wireless network is easily affected by many environment factors. Every environment is unique with different obstacles, construction materials, weather, etc. It is hard to determine the exact operation rage of WAP-4030A in a specific location without testing.

3. Antenna adjustment

The bundle antenna of WAP-4030A is adjustable. Firstly install the antenna pointing straight up, then smoothly adjust it if the radio signal strength is poor. But the signal reception is definitely weak in some certain areas, such as location right down the antenna.

Moreover, the original antenna of WAP-4030A can be replaced with other external antennas to extend the coverage. Please check the specification of the antenna you want to use, and make sure it can be used on WAP-4030A.

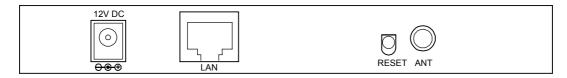
4. WLAN Type

If WAP-4030A is installed in an 802.11b and 802.11g mixed WLAN, its performance will reduced significantly. Because every 802.11g OFDM packet needs to be preceded by an RTS-CTS or CTS packet exchange that can be recognized by legacy 802.11b devices. This additional overhead lowers the speed. If there are no 802.11b devices connected, or if connections to all 802.11b devices are denied so that WAP-4030A can operate in 11g-only mode, then its data rate should actually 54Mbps.

Chapter 2 Hardware Installation

Before you proceed with the installation, it is necessary that you have enough information about the WAP-4030A.

2.1 Hardware Connection



- **1. Locate** an optimum location for the WAP-4030A. The best place for your WAP-4030A is usually at the center of your wireless network, with line of sight to all of your mobile stations.
- 2. Assemble the antenna to WAP-4030A. Try to place them to a position that can best cover your wireless network. The antenna's position will enhance the receiving sensitivity.
- **3. Connect RJ-45 cable to WAP-4030A.** Connect this WAP-4030A to your LAN switch/hub or a single PC.
- **4. Plug in power adapter and connect to power source**. After power on, WAP-4030A will start to work.

Note: ONLY use the power adapter supplied with the WAP-4030A. Otherwise, the product may be damaged.

If you want to reset your WAP-4030A to default settings, press the Reset button 5 second.

Then release the button and wait for 10 seconds for rebooting.

Chapter 3 Configuring the Wireless AP

Web configuration provides a user-friendly graphical user interface (web pages) to manage your WAP-4030A. An AP with an assigned IP address (e.g. http://192.168.0.1) will allow you to monitor and configure (via web browser e.g., MS Internet Explorer or Netscape).

- 1. Open your web browser.
- 2. Enter WAP-4030A IP address (default IP address is http://192.168.0.1) into the address field of the web browser. Please also make sure your PC's IP address is in the same IP range with WAP-4030A.
- 3. A User name and Password dialog box will appear. Please enter your User name and Password here.

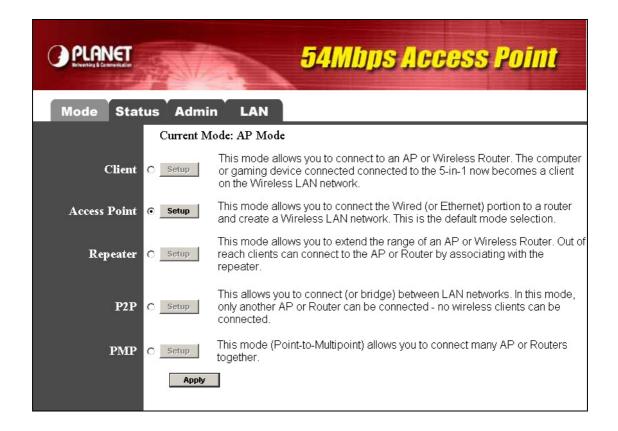
 Default User name and Password is "admin". Click "OK".



4. Then you will see the WAP-4030A configuration screen in the web page as the picture in section 3.1.

3.1 Operating Mode

In this screen, you can see all the operating modes of WAP-4030A. In Default, WAP-4030A is work with Access Point mode. Please select the operating mode you want and press "Setup" button. Then you can configure WAP-4030A to the operating mode. If the mode configuration had be done in before, you can select the operating mode and press "Apply" button without configure again.



3.1.1 Client Mode

In this screen, you can configure WAP-4030A as a wireless client. It is used to let a network device with only wired Ethernet function to have wireless LAN communication capability. It provides both Ad-Hoc and Infrastructure modes for the "Client Mode". With "Ad-Hoc mode", it can let your network device join a wireless LAN with peer-to-peer communication. With "Infrastructure mode", it can let your network device join a wireless LAN through an access point.

PLANET BY NEW YORK OF THE PARTY	54Mbps Access Point
Mode Stat	us Admin LAN
Station Mode	C 802.11b
MAC Cloning Mode	⊙ Disabled ○ Enabled
SSID	Default Site Survey
Operation Mode	○ Ad-Hoc
Channel	Channel 6 🔻
Security	⊙ Disable ○ WEP ○ WPA Setup
Preamble Type	○ Short
Transmit Rate	Auto
	Apply Cancel

Parameter	Description	1				
Station Mode	802.11b : It allo	ows to select t	he transm	it rate up	to 11Mbps.	
	Mixed: It allow	s to select the	e transmit	rate up to	54Mbps.	
MAC Cloning Mode	Disabled: It w	II use it's own	MAC add	lress to ac	cess the wirele	ss LAN.
	Enabled: It wil	l use PC's MA	AC addres	s to acces	s the wireless I	_AN.
SSID	The SSID (up	to 32 printa	able ASC	II charact	ers) is the un	ique name
	identified in a	WLAN. The	ID preven	ts the uni	ntentional merç	ging of two
	co-located WL	ANs. Please	make sur	e that the	SSID of all sta	tions in the
	same WLAN n	etwork are the	e same. T	he default	SSID is "defau	lt".
Site Survey	Click "Site Sur	vey" button, th	nen a "Wir	eless Site	Survey Table"	will pop up
	like below. It w	ill list all the a	vailable a	ccess poin	ts near by. You	can select
	one access p	oint in the tal	ole and it	will join v	vireless LAN th	rough this
	access point.					
						<u> </u>
	SSID O Wireless	Security Disabled	Channel 6	Signal % 31%	Network Type Infrastructure	

SSID Security Channel Signal % Network Type

Wireless Disabled 6 31% Infrastructure

default WEP Enable 7 8% Infrastructure

Operation Mode

AD-Hoc: It can let your network device join a wireless LAN with peer-to-peer communication.

Infrastructure: It can let your network device join a wireless LAN

through an access point.

Channel Select the appropriate channel from the list provided to correspond with

your network settings. Channels differ from country to country.

Channel 1-11 (North America)

Channel 1-14 (Japan) Channel 1-13 (Europe)

Security Disable: Disable the security function.

> WEP: It is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. It supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely. You may refer to section 3.5 to know the detail settings of it.

> WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. You may refer to section 3.6 to know

the settings of it.

Preamble Type Preamble type defines the length of preamble block in the frames during

the wireless communication.

Short: It is suitable for high traffic wireless network

Long: It can provide more reliable communication

Transmit Rate When you enable the station mode selection to "802.11b" and it allows you

to select the speed of 1-11Mbps. When you enable the station mode

selection to "802.11g" and it allows you to select the speed of 1-54Mbps.

Click "Apply" button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using WAP-4030A.

3.1.2 **Access Point Mode**

"AP Mode" provides pure access point function. The simplest way to build up a wireless LAN is to use "AP Mode".



Mode Status Admin LAN		
MODE	ି 802.11b ି 802.11g ⓒ Mixed	
SSID	Default	
Broadcast SSID	○ Disable	
Channel	Channel 6 🔻	
Security	⊙ Disable C WEP C WPA Setup	
Advanced Settings	Setup	
Access Filter	Setup	
	Apply Cancel	

Parameter	Description
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps
	802.11g mode: It allows to select the transmit rate up to 54Mbps
	Mixed mode: It provides best performance for 11g transmission when you enable
	the AP mode selection to "Mixed mode".
SSID	The SSID (up to 32 printable ASCII characters) is the unique name identified in a
	WLAN. The ID prevents the unintentional merging of two co-located WLANs.
	Please make sure that the SSID of all stations in the same WLAN network are the
	same. The default SSID is "default".
Broadcast SSID	It will respond to Broadcast SSID requests. If you enable this function, every
	wireless station located within the coverage of this access point can discover this
	access point easily. If you are building a public wireless network, enabling this
	feature is recommended. Disabling "Broadcast ESSID " can provide better security.
Channel	Select the appropriate channel from the list provided to correspond with your
	network settings.
Security	Disable: Disable the security function.
	WEP: An authentication algorithm that can protect authorized Wireless LAN users
	against eavesdropping. The Authentication type and WEP key of wireless stations
	must be the same with the Access Point. It supports 64/128-bit WEP Encryption
	function. With this function, your data will be transmitted over the wireless network

securely. You may refer to section 3.5 to know the detail settings of it.

WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. You may refer to section 3.6 to know the settings of it.

Advance setting
It provides more powerful features for you to configuring.

Access Filter This Access Point allows you to provide a Filter List of MAC addresses that are

allowed associating with this AP.

Please click "Apply" button to save the above configurations.

3.1.2.1 Advance setting

Beacon Interval	100 (msec, range: 20~1000, default: 100)
RTS Threshold	2347 (range: 256~2347, default: 2347)
DTIM Interval	2 (range: 1~255, default: 2)
Protection Mode	⊙ Disable ○ Enable
Transmit Rate	Auto 🔻
Preamble Type	○ Short ⊙ Long ○ Auto
	Apply Close

Parameter	Description
Beacon Interval	The period of time that this access point broadcast a beacon. Beacon is used to
	synchronize the wireless network.
RTS Threshold	When the packet size is smaller the RTS threshold, the access point will not use the
	RTS/CTS mechanism to send this packet.
DTIM Period	This is the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a
	countdown field informing stations of the next window for listening to broadcast and
	multicast messages. When the Access Point has buffered broadcast or multicast
	messages for associated stations, it sends the next DTIM with a DTIM Interval value.
	Stations for the Access Point hear the beacons and awaken to receive the broadcast

and multicast messages.

Protection Mode It provides best performance for 11g transmission when you enable it.

Transmit Rate When you enable the station mode selection to "802.11b" and it allows you to select

the speed of 1-11Mbps. When you enable the station mode selection to "802.11g"

and it allows you to select the speed of 1-54Mbps.

Preamble Type Preamble type defines the length of preamble block in the frames during the wireless

communication.

Auto: It will auto switch to the more suitable method.

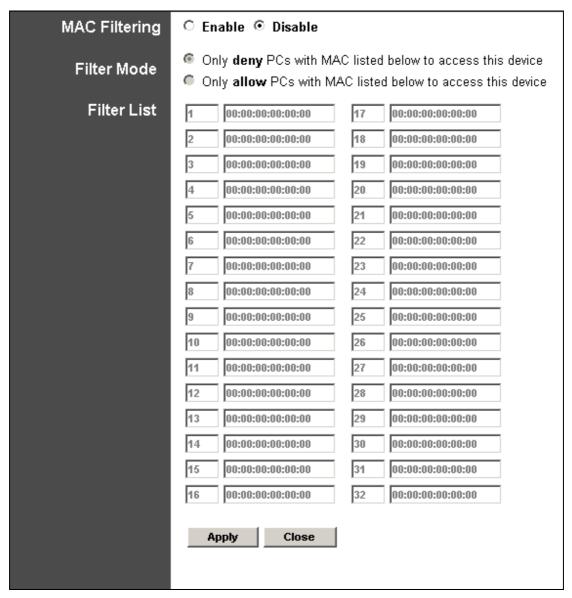
Short: It is suitable for high traffic wireless network

Long: It can provide more reliable communication.

Please click "Apply" button to save the above configurations.

3.1.2.2 Access Filter

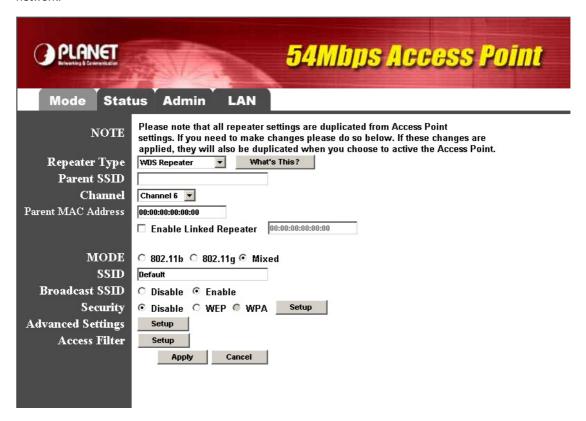
This Access Point allows you to provide a Filter List of MAC addresses that are allowed/denied associating with this AP.



Parameter	Description
MAC Filtering	You can enable or disable the MAC Filtering function.
Filter Mode	If you select "Only deny PCs with MAC listed below to access this device", then all the
	PCs in the list will be denied to access and all other PCs will be allowed to access. If
	you select "Only allow PCs with MAC listed below to access this device", then all PCs
	in the list will be allowed to access but all other PCs will be denied to access.
Filter List	Enter the MAC address of PC that will be managed by the MAC Filtering rule.
Please click "Ap	ply" button to save the above configurations.

3.1.3 Repeater Mode

In this mode, WAP-4030A can be a repeater between Access Point and wireless clients, that can extend the connect distance of your Access Point. When it works in this mode, it will also work as an access point. WAP-4030A has provided two repeater modes, you may select the suit one to your wireless network.



Parameter Description

Repeater Type

WAP-4030A has support two type of Repeater mode - WDS Repeater and Universal Repeater. When different Repeater mode selected, you will also enter different settings.

WDS Repeater: Please enter the remote Access Point's MAC address into Parent MAC address field. This mode allows you to connect second WDS Repeater mode WAP-4030A to this WDS Repeater mode WAP-4030A. You can check the "Enable Linked Repeater" and enter the second WDS Repeater WAP-4030A's MAC Address in this field. So you can use two WDS Repeaters to extended the connect distance of your Access Point. Normally, you cannot connect a Repeater to another Repeater, except WDS Repeater mode WAP-4030A. You can use one more WDS Repeater mode WAP-4030 to extended your connect distance. With this function, we have to remind you one thing, when wireless clients connect to first WDS Repeater, the performance will

be 50% as the clients connect to AP directly. When clients connect to second WDS Repeater, the performance will be 25%.

Universal Repeater: This repeater mode will connect your WAP-4030A to the Access Point when the SSID and channel are the same. You will need to enter remote AP's SSID to **Parent SSID** field and set the **Channel** the same as your Access Point.

The Repeater mode configuration is include two parts. The upper part is use to show which device the WAP-4030A will connect. The lower part is set this WAP-4030A configuration. So you will see a SSID option in lower part. WAP-4030A can work with its own SSID to wireless network. That can prevent users confuse on they are select the AP with the same SSID and different MAC Address in Site Survey screen. Users can clearly knew which AP they should connected with this new setting.

Parent SSID When Universal Repeater mode selected, you will need to enter the remote

Access Point's SSID.

Channel When Universal Repeater mode selected, please select the same Channel as

the remote Access Point.

Parent MAC Address When WDS Repeater mode selected, please enter remote Access Point's MAC

Address into this field.

Enable Linked When WDS Repeater mode selected, you can enable this option to connect

Repeater second WDS Repeater mode WAP-4030A to your WDS Repeater mode

WAP-4030A. In second WDS Repeater mode WAP-4030A, you will need to set the Parent MAC Address as the first WDS Repeater mode WAP-4030A's MAC

address.

Mode **802.11b mode:** It allows to select the transmit rate up to 11Mbps

802.11g mode: It allows to select the transmit rate up to 54Mbps

Mixed mode: It provides best performance for 11g transmission when you

enable the AP mode selection to "Mixed mode".

SSID The SSID (up to 32 printable ASCII characters) is the unique name identified in a

WLAN. The ID prevents the unintentional merging of two co-located WLANs.

Please make sure that the SSID of all stations in the same WLAN network are

the same. The default SSID is "Default".

Broadcast SSID It will respond to Broadcast SSID requests. If you enable this function, every

wireless station located within the coverage of this access point can discover this

access point easily. If you are building a public wireless network, enabling this feature is recommended. Disabling "Response to Broadcast ESSID requests" can provide better security.

Security

Disable: Disable the security function.

WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely. Please refer to section 3.5 to configure.

WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. When you enabled WPA mode, you can not use WEP encryption. Please refer to section 3.6 to configure.

Advance setting

It provides more powerful features for you to configuring. Please refer to section

3.1.2.1.

Access Filter

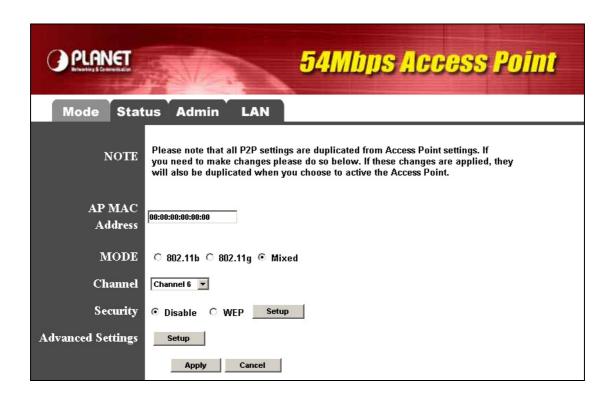
This Access Point allows you to provide a Filter List of MAC addresses that are

allowed associating with this AP. Please refer to 3.1.2.2.

Please click "Apply" button to save the above configurations.

3.1.4 Point-to-Point Mode

This function provides to bridge for 2 wired Ethernet networks to connect to each other by wireless. You can use two WAP-4030s in "P2P mode" to connect two wired Ethernet networks together.



Parameter	Description
AP MAC Address	You have to enter the MAC addresses of another WAP-4030A that it will connect to.
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps
	802.11g mode: It allows to select the transmit rate up to 54Mbps
	Mixed mode: It provides best performance for 11g transmission when you enable
	the AP mode selection to "Mixed mode".
Channel	Please select the same channel on both WAP-4030A.
Security	Disable: Disable the security function.
	WEP : WEP is an authentication algorithm, which protects authorized Wireless LAN
	users against eavesdropping. The Authentication type and WEP key of wireless
	stations must be the same with the Access Point. This Access Point supports
	64/128-bit WEP Encryption function. With this function, your data will be transmitted
	over the wireless network securely. Please refer to section 3.5 to configure.
Advance setting	It provides more powerful features for you to configuring. Please refer to section
	3.1.4.1.

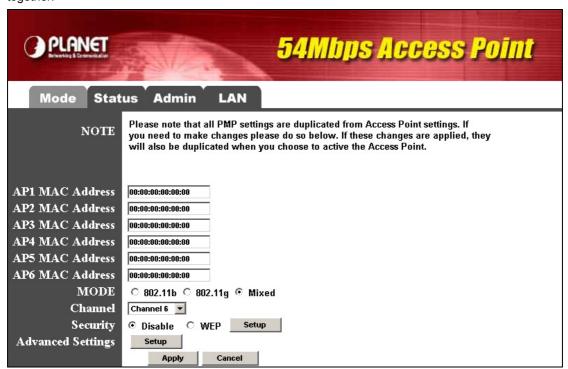
3.1.4.1 Advance Setting

RTS Threshold:	2347 (range: 256~2347, default: 2347)
DTIM Interval:	2 (range: 1~255, default: 2)
Protection Mode:	○ Disable ⓒ Enable
Transmit Rate:	Auto 🔻
Preamble Type:	○ Short ⊙ Long ○ Auto
	Apply Close

Parameter	Description
RTS Threshold	When the packet size is smaller the RTS threshold, the access point will not use the
	RTS/CTS mechanism to send this packet.
DTIM Period	This is the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field
	is a countdown field informing stations of the next window for listening to broadcast
	and multicast messages. When the Access Point has buffered broadcast or
	multicast messages for associated stations, it sends the next DTIM with a DTIM
	Interval value. Stations for the Access Point hear the beacons and awaken to
	receive the broadcast and multicast messages.
Protection Mode	It provides best performance for 11g transmission when you enable it.
Transmit Rate	When you enable the standard mode to "802.11b" and it allows you to select the
	speed of 1-11Mbps. When you enable the standard mode to "802.11g" and it allows
	you to select the speed of 1-54Mbps. In default, it will set to "Auto".
Preamble Type	Preamble type defines the length of preamble block in the frames during the
	wireless communication.
	Auto: It will auto switch to the more suitable method.
	Short : It is suitable for high traffic wireless network.
Please click "Apply"	Long : It can provide more reliable communication. 'button to save the above configurations.

3.1.5 Point-to-Multipoint Mode

This function provides to bridge more than 2 wired Ethernet networks together by wireless connection. You can use more than two WAP-4030A with "P2MP mode" to connect those wired Ethernet networks together.



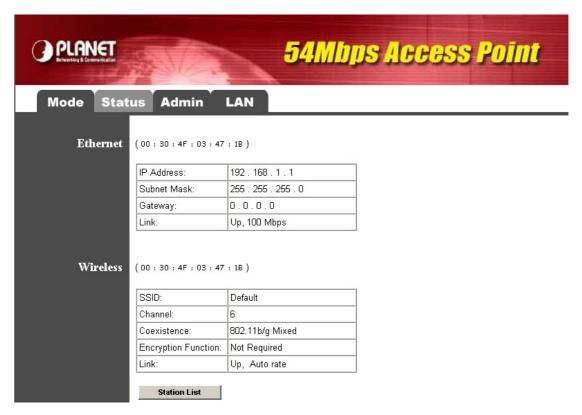
Parameter	Description
AP MAC Address	If you want to bridge more than two wired Ethernet networks together with wireless
	connection, you have to enter the MAC addresses of otherWAP-4030As that with
	join the bridging work into the fields.
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps
	802.11g mode: It allows to select the transmit rate up to 54Mbps
	Mixed mode: It provides best performance for 11g transmission when you enable
	the AP mode selection to "Mixed mode".
Channel	Select the appropriate channel from the list provided to correspond with your
	network settings.
Security	Disable: Disable the security function.
	WEP : WEP is an authentication algorithm, which protects authorized Wireless LAN
	users against eavesdropping. When this function enable, please make sure you
	have set all the WAP-4030As to the same WEP key. You may refer to section 3.5 to
	set the WEP key.
Advance setting	It provides more powerful features for you to configuring. Please refer to section

3.1.4.1 to configure.

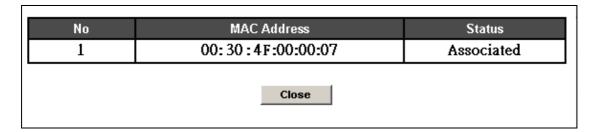
Please click "Apply" button to save the above configurations.

3.2 Status

In this option, you can see the WAP-4030A current settings.

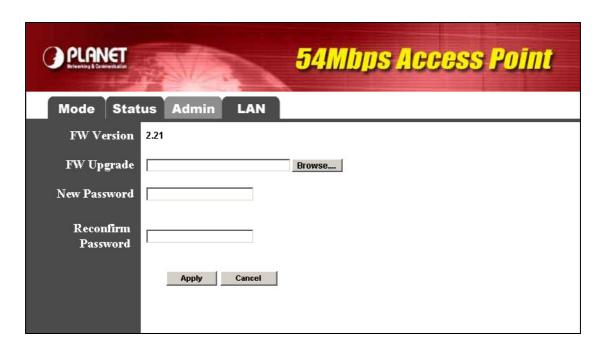


When it is work in AP mode, you can press the "Station List" button to know which client is connected to this AP like below.



3.3 Admin

You can upgrade WAP-4030A with latest firmware and assign a new password in this screen.

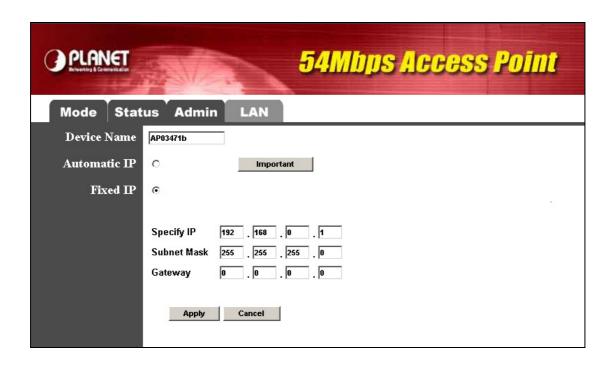


Parameter	Description
FW Version	It shows the current firmware version.
FW Upgrade	This tool allows you to upgrade WAP-4030A firmware. Before upgrade, you will
	need to download the firmware file from internet to your local hard disk, and
	enter that file name and path in the appropriate field on this page. You can also
	use the "Browse" button to find out the firmware in your PC. Please restart
	WAP-4030A after upgrade process is complete.
New Password	Enter the password (up to 32-digit alphanumeric string) you want to login to the
	Access Point. Note that the password is case-sensitive.
Reconfirm Password	Reconfirm the password that you have enter above

Please click "Apply" save the above configurations.

3.4 LAN

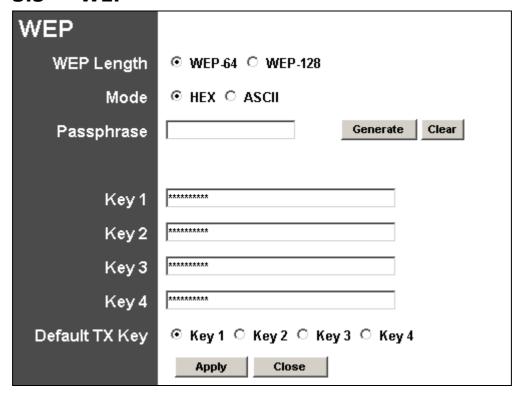
You can assign a new device name and IP Address in this option.



Parameter	Description
Device Name	It shows current device name.
Automatic IP	If there is a DHCP Server in your LAN, you can select this option to let this
	WAP-4030A get an IP address from the DHCP Server. Before work with Automatic
	IP, please press "Important" button and check the content inside.
Fixed IP	Specify IP: Designate the Access Point's IP Address. This IP Address should be
	unique in your network. The default IP Address is 192.168.0.1.
	Subnet Mask: Specify a Subnet Mask for your LAN segment.
	Gateway: Specify the default gateway IP of this Access Point.

Please click "Apply" button to save the above configurations.

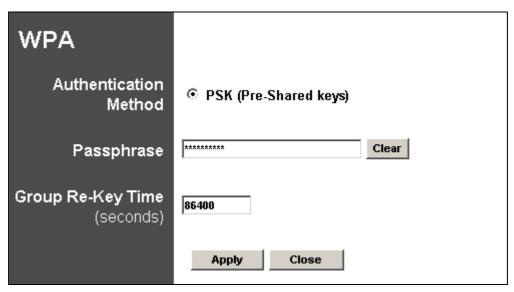
3.5 WEP



Parameter	Description
WEP Length	WEP-64: input 10-digit Hex values or 5-digit ASCII character as the
	encryption keys.
	WEP-128: input 26-digit Hex values or 13-digit ASCII characters as the
	encryption keys.
Mode	You may select to select ASCII Characters (alphanumeric format) or
	Hexadecimal Digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.
	For example:
	HEX: 12345abcde
	ASCII: guest
Passphrase	Enter passphrase and click "Generate", then the access point will
	automatically generate WEP keys by the passphrase for you.
Key 1 - Key 4	The WEP keys are used to encrypt data transmitted in the wireless network.
Default TX Key	Select the WEP key used to encrypt data transmitted in the wireless
	network.

Please click "Apply" to save the above configurations.

3.6 WPA-PSK



Parameter	Description
Authentication Type	The Pre-shared key is used to authenticate and encrypt data transmitted in the
	wireless network.
Passphrase	To entry at least 8 character pass phrase as the pre-shared keys.

Please click "Apply" to save the above configurations.

Chapter 4 Troubleshooting

This chapter provides answer to problems usually encountered during the *installation* and operation of the *Wireless Network Access Point*. Read the description below to solve your problems.

Q. Can I run an application from a remote computer over the wireless network?

A. This will depend on whether or not the application is designed to be used over a network. Consult the application's user guide to determine if it supports operation over a network.

Q. Can, I play games with other members of the cordless network?

A. Yes, as long as the game supports multiple plays over a LAN (local area network). Refer to the game's user guide for more information.

Q. What is the IEEE 802.11g standard?

A. The IEEE 802.11g Wireless LAN standards subcommittee, which is formulating a standard for the industry. The objective is to enable wireless LAN hardware from different manufactures to communicate.

Q. What IEEE 802.11 features are supported?

A. The product supports the following IEEE 802.11 functions:

- · CSMA/CA plus Acknowledge protocol
- · Multi-Channel Roaming
- · Automatic Rate Selection
- · RTS/CTS feature
- · Fragmentation
- · Power Management

Q. What is Infrastructure?

A. An integrated wireless and wired LAN is called an Infrastructure configuration. Infrastructure is applicable to enterprise scale for wireless access to central database, or wireless application for mobile workers.

Q. What is Roaming?

A. Roaming is the ability of a portable computer user to communicate continuously while moving freely throughout an area greater than that covered by a single Wireless Network Access Point. Before using the roaming function, the workstation must make sure that it is the same channel number with the Wireless Network Access Point of dedicated coverage area.